WE CLAIM:

1. A bicyclic imidazo-5-yl-amine of formula I

$$\begin{array}{c|c}
R3 & X \\
\hline
 & R4 \\
\hline
 & R1 - N \\
\hline
 & R2 \\
\hline
 & I \\
\end{array}$$

wherein

 R^1 denotes $C(CH_3)_3$; $(CH_2)_6CN$; optionally substituted phenyl; C_4 - C_8 -cycloalkyl; CH_2CH_2R (R=4-morpholino); 1,1,3,3-tetramethylbutyl; or CH_2R^a , wherein R^a represents hydrogen, branched or unbranched C_1 - C_8 -alkyl, optionally substituted phenyl, CO(OR') (where R'= branched or unbranched C_1 - C_8 -alkyl), $PO(OR'')_2$ (where R''= branched or unbranched C_1 - C_4 -alkyl) or $Si(R^xR^yR^z)$ (where R^x , R^y and R^z in each case independently of one another are branched or unbranched C_1 - C_8 -alkyl, C_4 - C_8 -cycloalkyl or phenyl),

 R^2 denotes hydrogen; COR^b , wherein R^b represents hydrogen, branched or unbranched C_1 - C_8 -alkyl, C_3 - C_8 -cycloalkyl, $CH_2CH_2CO(OR')$ (where R' = branched or unbranched C_1 - C_8 -alkyl), adamantyl, optionally substituted phenyl, optionally substituted 1-naphthyl, 2-naphthyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, thiazolyl or furoyl; CH_2R^c , wherein R^c represents hydrogen, branched or unbranched C_1 - C_8 -alkyl or optionally substituted phenyl; $CH_2CH_2R^d$, wherein R^d represents optionally substituted phenyl; or $CONHR^e$, wherein R^e represents phenyl,

R³ denotes branched or unbranched C₁-C₈-alkyl, C₃-C₈-cycloalkyl, optionally substituted 1-naphthyl, 2-naphthyl, quinoline, anthracene, phenanthrene, benzothiophene, benzofurfuryl, optionally

substituted pyrrole, 2-pyridyl, 3-pyridyl, 4-pyridyl, optionally substituted furfuryl or optionally substituted thiophene,

X denotes CR5, N or S, and

Y is N, or if X is S, then Y may also be CR6,

R⁴, R⁵ and R⁶ independently of one another denote hydrogen; branched or unbranched C₁-C₈-alkyl; fluorine; chlorine; bromine; CF₃; CN; NO₂; NHR^f, wherein R^f represents hydrogen, branched or unbranched C₁-C₈-alkyl or optionally substituted phenyl; SR^g, wherein R^g represents hydrogen, branched or unbranched C₁-C₈-alkyl, phenyl, pyridine, benzyl or fluorenyl; OR^h, wherein R^h represents branched or unbranched C₁-C₈-alkyl, optionally substituted phenyl or CO(OR') (R' = branched or unbranched C₁-C₈-alkyl); CO(OR') or CH₂CO(OR'), wherein R' in each case has the abovementioned meaning or in the case of the group CH₂CO(OR') also denotes hydrogen, or an optionally substituted phenyl group,

wherein optionally substituted phenyl, optionally substituted 1-naphthyl, optionally substituted pyrrole, optionally substituted furfuryl, optionally substituted thiophene, and optionally substituted alkyl is optionally substituted by one or more substituents selected from the group consisting of a halogen atom, cyano group, nitro group, carboxyl group, hydroxyl group, C_1 - C_4 alkylamido group, C_1 - C_4 alkylamino group, pyrrolidino group, branched or unbranched C_1 - C_6 alkyl group, C_1 - C_4 alkyl group substituted with one or more halogen atoms, C_1 - C_4 alkoxy group, C_1 - C_4 alkoxy group substituted with one or more halogen atoms, and halogen substituted phenoxy group,

or a pharmaceutically acceptable salt thereof,

excluding compounds in which simultaneously R^1 denotes $C(CH_3)_3$, R^2 denotes hydrogen, R^3 denotes unsubstituted phenyl, X denotes S, and Y denotes N or CR^6 , where R^6 = hydrogen or CH_2 - CO_2 -ethyl, or simultaneously R^1 denotes

 $C(CH_3)_3$, R^2 denotes hydrogen, R^3 denotes unsubstituted phenyl, Y denotes NH, and X denotes N or CR^5 , where $R^5 = CO_2$ ethyl.

2. A bicyclic imidazo-5-yl-amine according to claim 1,

wherein R³ is a substituted phenyl group selected from the group consisting of 4-acetamidophenyl, 2-bromophenyl, 3-bromophenyl, 4-bromophenyl, 4-bromo-2-fluorophenyl, 5-bromo-2-fluorophenyl, 3-bromo-4-fluorophenyl, 4-tert-butylphenyl, 2-chloro-4-fluorophenyl, 2-chloro-6-fluorophenyl, 2-chlorophenyl, 3-chlorophenyl, 4-chlorophenyl, 4-cyanophenyl, 2,3-dichlorophenyl, 2,4-dichlorophenyl, 3,4-dichlorophenyl, 2,3-dimethoxyphenyl, 3,4-dimethoxyphenyl, 2,4-dimethylphenyl, 2,5-dimethylphenyl, 2-fluorophenyl, 3-fluorophenyl, 4-fluorophenyl, 4-hexylphenyl, 3-hydroxyphenyl, 2-methoxyphenyl, 2-methylphenyl, 3-methylphenyl, 4-methylphenyl, 4-nitrophenyl, 3-phenoxyphenyl, 4-(1-pyrrolidino)phenyl, 2-(trifluoromethyl)phenyl, 3-(trifluoromethyl)phenyl, 4-(trifluoromethyl)phenyl, 3-(4-chlorophenoxy)phenyl and 4-acetoxy-3-methoxyphenyl,

or R³ is a substituted 1-naphthyl group selected from the group consisting of 4-dimethylaminonaphthyl, 2-ethoxynaphthyl and 4-methoxynaphthyl,

or R³ is a substituted pyrrole group selected from the group consisting of 2-(1-(phenylsulfonyl)pyrrole), 2-(N-methylpyrrole), 2-(N-(3,5-dichlorophenyl)pyrrole and 2-(1-(4-chlorophenyl)pyrrole),

or R³ is a substituted furfuryl group selected from the group consisting of 2-(5-acetoxymethylfurfuryl), 2-(5-methylfurfuryl), 2-(5-nitrofurfuryl), 2-[5-(3-nitrophenyl)furfuryl], 2-[5-(2-nitrophenyl)furfuryl], 2-[5-(5-bromofurfuryl), 2-[5-(4-chlorophenyl)furfuryl], 2-(4,5-dimethylfurfuryl), 2-[5-(2-chlorophenyl)furfuryl], 2-(5-ethylfurfuryl) and 2-[5-(1,3-dioxalane)furfuryl],

or R³ is a substituted thiophene group, selected from the group consisting of 2-(5-chlorothiophenyl), 2-(5-methylthiophenyl), 2-(5-ethylthiophenyl), 2-(3-

methylthiophenyl), 2-(4-bromothiophenyl), 2-(5-nitrothiophenyl), 5-(2-carboxythiophenyl), 2-[4-(phenylethyl)thiophenyl], 2-[5-(methylthio)thiophenyl], 2-(3-bromothiophenyl), 2-(3-phenoxythiophenyl) and 2-(5-bromothiophenyl).

- 3. A bicyclic imidazo-5-yl-amine according to claim 1, wherein R^b is a substituted phenyl group selected from the group consisting of 3,5bis(trifluoromethyl)phenyl, 2-bromophenyl, 2-fluorophenyl, pentafluorophenyl, 2,4-difluorophenyl, 2,6-difluorophenyl, 2-chlorophenyl, 2,4-dichlorophenyl, 2acetylphenyl, 2-methoxyphenyl, 2,6-dimethoxyphenyl, 2-(trifluoromethyl)phenyl, 2-methylphenyl, 3-bromophenyl, 3-fluorophenyl, 3-chlorophenyl, 3,4dichlorophenyl, 3-methoxyphenyl, 3,4-dimethoxyphenyl, 3,4,5-trimethoxyphenyl, 3,5-dimethoxyphenyl, 3-(trifluoromethyl)phenyl, 3-methoxyphenyl, 4bromophenyl, 4-fluorophenyl, 4-chlorophenyl, 4-methoxyphenyl, 4-(trifluoromethyl)phenyl, 4-tert-butylphenyl, 4-methylphenyl, 2-iodophenyl, 4iodophenyl, 4-cyanophenyl, 2-nitrophenyl, 3-nitrophenyl, 3,5-dinitrophenyl, 4nitrophenyl, 3,5-dichlorophenyl, 2,5-difluorophenyl, 2,4-dimethoxyphenyl, 3nitro-4-methylphenyl, 2,5-dichlorophenyl, 2,3-difluorophenyl, 4-(trifluoromethoxy)phenyl, 2-(trifluoromethoxy)phenyl, and 3-(trifluoromethoxy)phenyl.
- 4. A bicyclic imidazo-5-yl-amine according to claim 1, wherein R^c is a substituted phenyl group selected from the group consisting of 2-fluorophenyl, 2-chlorophenyl, 2-methylphenyl 2-(trifluoromethyl)phenyl, 2-bromophenyl, 3-methoxyphenyl, 3-nitrophenyl, 3-chlorophenyl, 3-fluorophenyl, 3-phenoxyphenyl, 3-(trifluoromethoxy)phenyl, 3-bromophenyl, 3-chlorophenyl, 3-methylphenyl, 4-tert-butylphenyl, 4-fluorophenyl, 4-chlorophenyl, 4-vinylphenyl, 4-(trifluoromethoxy)phenyl, 3,5-dimethoxyphenyl, 3,5-difluorophenyl, 3,5-difluorophenyl, 3,5-difluorophenyl, 3,5-dimethylphenyl, 2,3-dichlorophenyl, 2,3-dichlorophenyl, 2,3-dichlorophenyl, 2,4-dichlorophenyl, 2,4-difluorophenyl, 2,4-difluorophenyl, 2,5-dimethylphenyl, 2,5-dimet

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difluorophenyl, 3,4-dichlorophenyl, '3,4-difluorophenyl, 3,4-dimethylphenyl, 2,3,4-trifluorophenyl, 2,3,6-trifluorophenyl, 2,4,5-trifluorophenyl, 2,4,6-trimethylphenyl and pentafluorophenyl.

- 5. A bicyclic imidazo-5-yl-amine according to claim 1, wherein R^d is a substituted phenyl group selected from the group consisting of 3-chlorophenyl, 4-chlorophenyl, 4-carboxyphenyl, 4-acetylphenyl, 4-methoxyphenyl, 4-fluorophenyl, 4-nitrophenyl and 4-hydroxyphenyl.
- 6. A bicyclic imidazo-5-yl-amine selected from the group consisting of
 tert-butyl-(5-furan-2-yl-imidazo[1,2-b][1,2,4]triazol-6-yl)-amine,

 tert-butyl-(6-furan-2-yl-imidazo[2,1-b]thiazol-5-yl)-amine,

 (5-tert-butylamino-6-furan-2-yl-imidazo[2,1-b]thiazol-3-yl)-acetic acid,

tert-butyl-(5-pyridin-2-yl-imidazo[1,2-b][1,2,4]triazol-6-yl)-amine,
tert-butyl-(6-pyridin-2-yl-imidazo[2,1-b]thiazol-5-yl)-amine,
tert-butyl-(5-pyridin-3-yl-imidazo[1,2-b][1,2,4]triazol-6-yl)-amine,
tert-butyl-(5-pyridin-4-yl-imidazo[1,2-b][1,2,4]triazol-6-yl)-amine,
tert-butyl-(6-cyclohexyl-imidazo[2,1-b]thiazol-5-yl)-amine,
tert-butyl-(5-methyl-imidazo[1,2-b][1,2,4]triazol-6-yl)-amine,
tert-butyl-(6-methyl-imidazo[2,1-b]thiazol-5-yl)-amine,
cyclohexyl-(5-pyridin-2-yl-imidazo[1,2-b][1,2,4]triazol-6-yl)-amine,
cyclohexyl-(6-pyridin-2-yl-imidazo[2,1-b]thiazol-5-yl)-amine,

acid,

(5-cyclohexylamino-6-pyridin-2-yl-imidazo[2,1-b]thiazol-3-yl)-acetic

cyclohexyl-(6-pyridin-4-yl-imidazo[2,1-b]thiazol-5-yl)-amine,

cyclohexyl-(6-cyclohexyl-imidazo[2,1-b]thiazol-5-yl)-amine,

(6-cyclohexyl-5-cyclohexylamino-imidazo[2,1-b]thiazol-3-yl)-acetic

acid,

(5-cyclohexylamino-6-methyl-imidazo[2,1-b]thiazol-3-yl)-acetic acid,

(2,6-dimethyl-phenyl)-(5-furan-2-yl-imidazo[1,2-b][1,2,4]triazol-6-

yl)-amine,

(2,6-dimethyl-phenyl)-(6-pyridin-2-yl-imidazo[2,1-b]thiazol-5-yl)-

amine,

(2,6-dimethyl-phenyl)-(6-pyridin-3-yl-imidazo[2,1-b]thiazol-5-yl)-

amine,

(2,6-dimethyl-phenyl)-(6-pyridin-4-yl-imidazo[2,1-b]thiazol-5-yl)-

amine,

methyl (6-cyclohexyl-imidazo[2,1-b]thiazol-5-ylamino)-acetate,

methyl (6-methyl-imidazo[2,1-b]thiazol-5-ylamino)-acetate,

tert-butyl-(2-phenyl-5H-imidazo[1,2-b]pyrazol-3-yl)-amine,

 $3\hbox{-}(5\hbox{-}tert\hbox{-}butylamino\hbox{-}imidazo[2,1\hbox{-}b]thiazol\hbox{-}6\hbox{-}yl)\hbox{-}phenol,$

tert-butyl-[6-(3,4-dimethoxy-phenyl)-imidazo[2,1-b]thiazol-5-yl]-

amine,

tert-butyl-[5-(2,3-dichloro-phenyl)-imidazo[1,2-b][1,2,4]triazol-6-yl]-

amine,

 $tert\text{-}butyl\text{-}[6\text{-}(2,3\text{-}dichloro\text{-}phenyl)\text{-}imidazo[2,1\text{-}b]thiazol\text{-}5\text{-}yl]\text{-}amine,}$ $tert\text{-}butyl\text{-}[5\text{-}(2,4\text{-}dichloro\text{-}phenyl)\text{-}imidazo[1,2\text{-}b][1,2,4]triazol\text{-}6\text{-}yl]\text{-}}$

tert-butyl-[6-(2,4-dichloro-phenyl)-imidazo[2,1-b]thiazol-5-yl]-amine, tert-butyl-[5-(2-methoxy-phenyl)-imidazo[1,2-b][1,2,4]triazol-6-yl]-

amine,

amine,

 $tert\text{-}butyl\text{-}[6\text{-}(2\text{-}methoxy\text{-}phenyl)\text{-}imidazo[2,1\text{-}b]thiazol\text{-}5\text{-}yl]\text{-}amine,}$ $[5\text{-}tert\text{-}butylamino\text{-}6\text{-}(2\text{-}methoxy\text{-}phenyl)\text{-}imidazo[2,1\text{-}b]thiazol\text{-}3\text{-}yl]\text{-}}$

acetic acid,

tert-butyl-(5-o-tolyl-imidazo[1,2-b][1,2,4]triazol-6-yl)-amine, tert-butyl-(6-o-tolyl-imidazo[2,1-b]thiazol-5-yl)-amine,

tert-butyl-[5-(2,3-dimethoxy-phenyl)-imidazo[1,2-b][1,2,4]triazol-6-

yl]-amine,

 $tert\hbox{-butyl-[6-(2,3-dimethoxy-phenyl)-imidazo[2,1-b]thiazol-5-yl]-}$

amine,

yl]amine,

 $tert\text{-}butyl\text{-}(6-p\text{-}tolyl\text{-}imidazo[2,1-b]thiazol\text{-}5-yl)\text{-}amine,}$ $(5\text{-}tert\text{-}butylamino\text{-}6\text{-}methyl\text{-}imidazo[2,1-b]thiazol\text{-}3\text{-}yl)\text{-}acetic acid,}$ $N\text{-}tert\text{-}butyl\text{-}N\text{-}(6\text{-}phenyl\text{-}imidazo[2,1-b]thiazol\text{-}5\text{-}yl)\text{-}acetamide,}$ $N\text{-}tert\text{-}butyl\text{-}N\text{-}(6\text{-}o\text{-}tolyl\text{-}imidazo[2,1-b]thiazol\text{-}5\text{-}yl)\text{-}acetamide,}$ $butyl\text{-}[6\text{-}(4\text{-}tert\text{-}butyl\text{-}phenyl)\text{-}2\text{-}methyl\text{-}imidazo[2,1-b]thiazol\text{-}5\text{-}yl)}$

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 $tert\text{-}butyl\text{-}[5\text{-}(2\text{-}fluorophenyl)\text{-}imidazo[1,2\text{-}b][1,2,4]triazol\text{-}6\text{-}yl]\text{-}}$ amine,

tert-butyl-[6-(2-fluorophenyl)-imidazo[2,1-b]thiazol-5-yl]-amine, tert-butyl-(5-naphthalen-1-yl-imidazo[1,2-b][1,2,4]triazol-6-yl)- amine,

 ${\it cyclohexyl-} (5-naphthalen-1-yl-imidazo[1,2-b][1,2,4]triazol-6-yl)-amine,$

[5-(2-bromophenyl)-imidazo[1,2-b][1,2,4]triazol-6-yl]-(1,1,3,3-tetramethyl-butyl)-amine,

 $N\hbox{-}[4\hbox{-}(6\hbox{-}cyclohexylamino\hbox{-}imidazo[1,2\hbox{-}b][1,2,4]triazol\hbox{-}5\hbox{-}yl)\hbox{-}phenyl)\hbox{-}acetamide,}$

 $tert\hbox{-butyl-} [5\hbox{-}(2,5\hbox{-dimethyl-phenyl})\hbox{-imidazo} [1,2\hbox{-}b] [1,2,4] triazol\hbox{-}6\hbox{-yl}]-amine,$

 ${\it cyclohexyl-} [6\hbox{-}(2,4\hbox{-}dimethyl\hbox{-}phenyl)\hbox{-}imidazo[2,1\hbox{-}b]thiazol\hbox{-}5\hbox{-}yl]\hbox{-}$ amine,

 ${\it cyclohexyl-} [6\hbox{-}(2,5\hbox{-}dimethylphenyl)\hbox{-}imidazo[2,1\hbox{-}b]thiazol\hbox{-}5\hbox{-}yl]\hbox{-}amine,$

 $N\text{-}tert\text{-}butyl\text{-}N\text{-}(6\text{-}p\text{-}tolyl\text{-}imidazo[2,1\text{-}b]thiazol\text{-}5\text{-}yl)\text{-}acetamide,}$

[5-(2,4-dimethyl-phenyl)-imidazo[1,2-b][1,2,4]triazol-6-yl]-(1,1,3,3-tetramethyl-butyl)-amine,

 $[5\hbox{-}(2,5\hbox{-}dimethyl\hbox{-}phenyl)\hbox{-}imidazo[1,2\hbox{-}b][1,2,4]triazol\hbox{-}6\hbox{-}yl]\hbox{-}(1,1,3,3-tetramethyl\hbox{-}butyl)\hbox{-}amine,$

 $\label{lem:normalize} N-butyl-N-[5-(2-chloro-6-fluorophenyl)-imidazo[1,2-b][1,2,4] triazol-6-yl]-acetamide and$

 $\label{lem:normalize} N-butyl-N-[6-(4-\textit{tert}-butyl-phenyl)-2-methyl-imidazo[2,1-b]thiazol-5-yl]-acetamide$

or a pharmaceutically acceptable salt thereof.

- 7. A pharmaceutical composition comprising at least one pharmaceutically active bicyclic imidazo-5-yl-amine according to Claim 1, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient.
- 8. A pharmaceutical composition according to Claim 7, wherein the at least one bicyclic imidazo-5-yl-amine is selected from the group consisting of tert-butyl-(5-furan-2-yl-imidazo[1,2-b][1,2,4]triazol-6-yl)-amine, tert-butyl-(6-furan-2-yl-imidazo[2,1-b]thiazol-5-yl)-amine, (5-tert-butylamino-6-furan-2-yl-imidazo[2,1-b]thiazol-3-yl)-acetic acid,

tert-butyl-(5-pyridin-2-yl-imidazo[1,2-b][1,2,4]triazol-6-yl)-amine,
tert-butyl-(6-pyridin-2-yl-imidazo[2,1-b]thiazol-5-yl)-amine,
tert-butyl-(5-pyridin-3-yl-imidazo[1,2-b][1,2,4]triazol-6-yl)-amine,
tert-butyl-(5-pyridin-4-yl-imidazo[1,2-b][1,2,4]triazol-6-yl)-amine,
tert-butyl-(6-cyclohexyl-imidazo[2,1-b]thiazol-5-yl)-amine,
tert-butyl-(5-methyl-imidazo[1,2-b][1,2,4]triazol-6-yl)-amine,
tert-butyl-(6-methyl-imidazo[2,1-b]thiazol-5-yl)-amine,
cyclohexyl-(5-pyridin-2-yl-imidazo[1,2-b][1,2,4]triazol-6-yl)-amine,
cyclohexyl-(6-pyridin-2-yl-imidazo[2,1-b]thiazol-5-yl)-amine,

(5-cyclohexylamino-6-pyridin-2-yl-imidazo[2,1-b]thiazol-3-yl)-acetic acid, cyclohexyl-(6-pyridin-4-yl-imidazo[2,1-b]thiazol-5-yl)-amine, cyclohexyl-(6-cyclohexyl-imidazo[2,1-b]thiazol-5-yl)-amine, (6-cyclohexyl-5-cyclohexylamino-imidazo[2,1-b]thiazol-3-yl)-acetic acid, (5-cyclohexylamino-6-methyl-imidazo[2,1-b]thiazol-3-yl)-acetic acid, (2,6-dimethyl-phenyl)-(5-furan-2-yl-imidazo[1,2-b][1,2,4]triazol-6yl)-amine, (2,6-dimethyl-phenyl)-(6-pyridin-2-yl-imidazo[2,1-b]thiazol-5-yl)amine, (2,6-dimethyl-phenyl)-(6-pyridin-3-yl-imidazo[2,1-b]thiazol-5-yl)amine, (2,6-dimethyl-phenyl)-(6-pyridin-4-yl-imidazo[2,1-b]thiazol-5-yl)amine, methyl (6-cyclohexyl-imidazo[2,1-b]thiazol-5-ylamino)-acetate, methyl (6-methyl-imidazo[2,1-b]thiazol-5-ylamino)-acetate, tert-butyl-(2-phenyl-5H-imidazo[1,2-b]pyrazol-3-yl)-amine, $3\hbox{-}(5\hbox{-}tert\hbox{-}butylamino\hbox{-}imidazo[2,1\hbox{-}b]thiazol\hbox{-}6\hbox{-}yl)\hbox{-}phenol,}\\$ tert-butyl-[6-(3,4-dimethoxy-phenyl)-imidazo[2,1-b]thiazol-5-yl]amine, tert-butyl-[5-(2,3-dichloro-phenyl)-imidazo[1,2-b][1,2,4]triazol-6-yl]-

amine,

tert-butyl-[6-(2,3-dichloro-phenyl)-imidazo[2,1-b]thiazol-5-yl]-amine, tert-butyl-[5-(2,4-dichloro-phenyl)-imidazo[1,2-b][1,2,4]triazol-6-yl]-amine,

amine,

yl]-amine,

amine,

yllamine,

tert-butyl-[6-(2,4-dichloro-phenyl)-imidazo[2,1-b]thiazol-5-yl]-amine, tert-butyl-[5-(2-methoxy-phenyl)-imidazo[1,2-b][1,2,4]triazol-6-yl]-

 $tert\text{-butyl-}[6\text{-}(2\text{-methoxy-phenyl})\text{-imidazo}[2,1\text{-b}]\text{thiazol-}5\text{-yl}]\text{-amine}, \\ [5\text{-}tert\text{-butylamino-}6\text{-}(2\text{-methoxy-phenyl})\text{-imidazo}[2,1\text{-b}]\text{thiazol-}3\text{-yl}]\text{-acetic acid}, \\$

tert-butyl-(5-o-tolyl-imidazo[1,2-b][1,2,4]triazol-6-yl)-amine, tert-butyl-(6-o-tolyl-imidazo[2,1-b]thiazol-5-yl)-amine, tert-butyl-[5-(2,3-dimethoxy-phenyl)-imidazo[1,2-b][1,2,4]triazol-6-yl)

 $tert\hbox{-butyl-[6-(2,3-dimethoxy-phenyl)-imidazo[2,1-b]thiazol-5-yl]-}$

tert-butyl-(6-p-tolyl-imidazo[2,1-b]thiazol-5-yl)-amine, (5-tert-butylamino-6-methyl-imidazo[2,1-b]thiazol-3-yl)-acetic acid, N-tert-butyl-N-(6-phenyl-imidazo[2,1-b]thiazol-5-yl)-acetamide, N-tert-butyl-N-(6-o-tolyl-imidazo[2,1-b]thiazol-5-yl)-acetamide, butyl-[6-(4-tert-butyl-phenyl)-2-methyl-imidazo[2,1-b]thiazol-5-

tert-butyl-[5-(2-fluorophenyl)-imidazo[1,2-b][1,2,4]triazol-6-yl]- amine,

 $tert\text{-}butyl\text{-}[6\text{-}(2\text{-}fluorophenyl)\text{-}imidazo[2,1\text{-}b]thiazol\text{-}5\text{-}yl]\text{-}amine,}$ $tert\text{-}butyl\text{-}(5\text{-}naphthalen\text{-}1\text{-}yl\text{-}imidazo[1,2\text{-}b][1,2,4]triazol\text{-}6\text{-}yl)\text{-}}$

amine,

amine,

 ${\it cyclohexyl-} (5-naphthalen-1-yl-imidazo[1,2-b][1,2,4]triazol-6-yl)-amine,$

[5-(2-bromophenyl)-imidazo[1,2-b][1,2,4]triazol-6-yl]-(1,1,3,3-tetramethyl-butyl)-amine,

N-[4-(6-cyclohexylamino-imidazo[1,2-b][1,2,4]triazol-5-yl)-phenyl)-acetamide,

tert-butyl- [5-(2,5-dimethyl-phenyl)-imidazo[1,2-b][1,2,4] triazol-6-yl]- amine,

cyclohexyl-[6-(2,4-dimethyl-phenyl)-imidazo[2,1-b]thiazol-5-yl]-

 ${\it cyclohexyl-[6-(2,5-dimethylphenyl)-imidazo[2,1-b]thiazol-5-yl]-amine,}$

 $N\text{-}\textit{tert}\text{-}\text{butyl-}N\text{-}(6\text{-}\text{p-tolyl-imidazo}[2,1\text{-}b]thiazol\text{-}5\text{-}yl)\text{-}acetamide,}$

 $[5\hbox{-}(2,4\hbox{-}dimethyl\hbox{-}phenyl)\hbox{-}imidazo[1,2\hbox{-}b][1,2,4]triazol\hbox{-}6\hbox{-}yl]\hbox{-}(1,1,3,3\hbox{-}tetramethyl\hbox{-}butyl)\hbox{-}amine,$

 $[5\hbox{-}(2,5\hbox{-}dimethyl\hbox{-}phenyl)\hbox{-}imidazo[1,2\hbox{-}b][1,2,4]triazol\hbox{-}6\hbox{-}yl]\hbox{-}(1,1,3,3\hbox{-}tetramethyl\hbox{-}butyl)\hbox{-}amine,}$

N-butyl-N-[5-(2-chloro-6-fluorophenyl)-imidazo[1,2-b][1,2,4] triazol-6-yl]-acetamide and

 $\label{eq:N-butyl-N-butyl-phenyl} N-butyl-N-[6-(4-\textit{tert}-butyl-phenyl)-2-methyl-imidazo[2,1-b]thiazol-5-yl]-acetamide.$

- 9. A method for the treatment of pain, comprising administering to a patient in need thereof an effective pain-alleviating amount of a pharmaceutical composition according to Claim 7.
- 10. A process for the preparation of a bicyclic imidazo-5-yl-amine of Formula Ia,

the process being three-component reaction and comprising reacting an amidine of Formula II

II

with an aldehyde of Formula III

III

and an isonitrile of Formula IV

$$R_1$$
- $N^+\equiv C$ -
 IV

in the presence of 20% perchloric acid,

wherein in all formulae,

 R^1 denotes $C(CH_3)_3$, $(CH_2)_6CN$, optionally substituted phenyl, C_4 - C_8 -cycloalkyl, CH_2CH_2R (R=4-morpholino), 1,1,3,3-tetramethylbutyl or CH_2R^a , wherein R^a represents hydrogen, branched or unbranched C_1 - C_8 -alkyl, optionally substituted phenyl, CO(OR') (where R'=1 branched or unbranched C_1 - C_8 -alkyl), $PO(OR'')_2$ (where R''=1 branched or unbranched C_1 - C_4 -alkyl) or $Si(R^xR^yR^z)$ (where R^x , R^y and R^z in each case independently of one another are branched or unbranched C_1 - C_8 -alkyl, C_4 - C_8 -cycloalkyl or phenyl),

R³ denotes branched or unbranched C₁-C₈-alkyl, C₃-C₈-cycloalkyl, optionally substituted phenyl, optionally substituted 1-naphthyl, 2-naphthyl, quinoline, anthracene, phenanthrene, benzothiophene, benzofurfuryl, optionally substituted pyrrole, 2-pyridyl, 3-pyridyl, 4-pyridyl, optionally substituted furfuryl or optionally substituted thiophene,

X denotes CR5, N or S,

Y is N, or if X is S, then Y may also be CR⁶,

 R^4 , R^5 and R^6 independently of one another denote hydrogen; branched or unbranched C_1 - C_8 -alkyl; fluorine; chlorine; bromine; CF_3 , CN; NO_2 ; NHR^f , wherein R^f represents hydrogen, branched or unbranched C_1 - C_8 -alkyl or optionally substituted phenyl; SR^g , wherein R^g represents hydrogen, branched or unbranched C_1 - C_8 -alkyl, phenyl, pyridine, benzyl or fluorenyl; OR^h , wherein R^h represents branched or unbranched C_1 - C_8 -alkyl, optionally substituted phenyl or CO(OR') (R' = branched or unbranched C_1 - C_8 -alkyl); CO(OR') or $CH_2CO(OR')$, wherein R' in each case has the abovementioned meaning or in the case of the group $CH_2CO(OR')$ also denotes hydrogen, or an optionally substituted phenyl group,

wherein optionally substituted phenyl, optionally substituted 1-naphthyl, optionally substituted pyrrole, optionally substituted furfuryl, optionally substituted thiophene, and optionally substituted alkyl is optionally substituted by one or more substituents selected from the group consisting of a halogen atom, cyano group, nitro group, carboxyl group, hydroxyl group, C_1 - C_4 alkylamido group, C_1 - C_4 alkylamino group, pyrrolidino group, branched or unbranched C_1 - C_6 alkyl group, C_1 - C_4 alkyl group substituted with one or more halogen atoms, C_1 - C_4 alkoxy group, C_1 - C_4 alkoxy group substituted with one or more halogen atoms, and halogen substituted phenoxy group,

excluding compounds wherein R^1 denotes $C(CH_3)_3$, R^3 denotes unsubstituted phenyl, X denotes S, and Y denotes N or CR^6 , where R^6 = hydrogen or CH_2 - CO_2 -ethyl, or wherein R^1 denotes $C(CH_3)_3$, R^3 denotes unsubstituted phenyl, Y denotes NH, and X denotes N or CR^5 , where R^5 = CO_2 ethyl,

- 11. A process according to Claim 10, wherein the reaction is carried out in methylene chloride at a temperature of 0°C to 40°C.
- 12. A process according to Claim 11, wherein the temperature is between 10°C and 20°C.
- 13. A process according to Claim 11, wherein the compound of Formula II is selected from the group consisting of 3-aminopyrazole, 3-amino-1,2,4-triazole, 2-amino-1,3,4-thiadiazole and 2-aminothiazole.
- 14. A process for the preparation of a bicyclic imidazo-5-yl-amine of Formula I

$$R3 \xrightarrow{N} \xrightarrow{X} R4$$

$$R1 - N$$

$$R2$$

I

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the process comprising reacting a compound of Formula Ia according to Claim 12 with a compound R²Hal, wherein Hal represents bromine, iodine or chlorine, or with an optionally substituted isocyanate R^eNCO in the presence of a morpholine resin in methylene chloride for 2 to 24 hours at a temperature between 10°C and 40°C,

wherein optionally substituted isocyanate is optionally substituted by one or more substituents selected from the group consisting of a halogen atom, cyano group, nitro group, carboxyl group, hydroxyl group, C₁-C₄ alkylamido group, C₁-C₄ alkylamino group, pyrrolidino group, branched or unbranched C₁-C₆ alkyl group, C₁-C₄ alkyl group substituted with one or more halogen atoms, C₁-C₄ alkoxy group, C₁-C₄ alkoxy group substituted with one or more halogen atoms, and halogen substituted phenoxy group.

- 15. The process of Claim 14, wherein after the reaction excess reagents are removed by filtration through a layer of polymer-bonded tris(2-aminoethyl) amine.
- 16. The process of Claim 14, wherein the compound of Formula Ia is first dissolved in methylene chloride or THF.
- 17. The process according to Claim 14, wherein R²Hal is an optionally substituted alkyl chloride, aryl chloride or hydrogen chloride.
- 18. The process of Claim 14, wherein the morpholine resin is a polystyrene-morpholine resin.